

WE CLAIM:

1. A method of providing customized contact lenses to a user, said method comprising the steps of:

5 providing a choice of sample eyes for selection by said user as a modeling template;

selecting one or more of said sample eyes as a template eye;

selecting a pre-configured pattern for superposition onto a portion of said template eye;

selecting one or more colors from a pallet of colors for coloring superposition areas of said selected pattern; and

adjusting said pattern and colors to generate an image of a contact lens in accordance with said user selections.

2. The method of claim 1 further comprising the step of generating contact lens manufacturing parameters and procedures in accordance with said image and said user selections.

3. A method of configuring a customized contact lens for a user linked to a computer network interface, said method comprising the steps of:

providing a plurality of sample eye templates for selection by said user via said computer network interface;

20 receiving a request from said user indicating selection of at least one of said eye templates;

providing said user with a plurality of available colors for incorporation into a portion of said selected template;

receiving a request from said user indicating selection of at least 25 one of said colors;

providing said user with an image of said selected eye template incorporating said at least one selected color;

receiving a request from said user to order at least one contact lens made in accordance with said image and said template; and

forwarding information relating to said image for fabrication into at least one contact lens made in accordance with said image and said template.

4. The method of claim 3 further comprising the steps of receiving information from said user relating to cornea shape and size; and

initially selecting said eye templates in accordance with said user-provided information prior to being provided to said user for selection.

5. The method of claim 4 further comprising the steps of forwarding said request to a manufacturing system; and manufacturing a contact lens in accordance with said user selections.

6. A method of configuring a customized contact lens for a user, said method comprising the steps of:

displaying a template eye image to assist said user in visualizing selected options for a customized contact lens;

displaying a plurality of contact lens selection options to said user, said information including a plurality of selectable lens colors and lens design patterns; and

sending an ordering request to order a contact lens.

7. The method of claim 6 further comprising the steps of incorporating lens colors and lens design patterns selected by the user into said order request;

receiving the ordering request; and

manufacturing a contact lens incorporating said lens colors and lens design patterns selected by said user.

8. The method of claim 6 further comprising the step of deriving a contact lens pattern that, when worn, modifies the appearance of an eye according to the intentions of the user.

5 9. The method of claim 7 further comprising the step of deriving a contact lens pattern that, when worn, modifies the appearance of an eye according to the intentions of the user.

10. The method of claim 6 further comprising the step of scanning a portion of an eye to create an image for use as said template eye image.

10 11. The method of claim 6 further comprising the steps of incorporating said lens colors and lens design patterns selected by said user into said template eye image to produce a modified template eye image; and

displaying said modified template image to said user for approval.

12. The method of claim 6 wherein said user is linked to a computer network via a user interface, and at least said steps of displaying contact lens selection information and sending said ordering request are performed via said interface.

20 13. The method of claim 12 wherein said user interface is a personal computer having a visual display.

14. The method of claim 13 wherein said user interface is a handheld portable personal computing device.

25 15. The method of claim 13 wherein said user interface is a portable laptop computer.

16. The method of claim 6 further comprising the step of providing an image of a contact lens to said user incorporating selected lens colors and lens design patterns for review by said user.

17. The method of claim 16 wherein said contact lens selection options further comprise lens vision correction parameters.

5 18. The method of claim 6 further comprising the steps of requesting submission of graphic design images from said user for incorporation into said customized contact lens and displaying a modified template image to said user incorporating submitted graphic design images.

19. The method of claim 18 wherein said graphic design images are requested through said user interface, said graphic design images further comprising image files in computer-readable format.

20. The method of claim 6 further comprising the step of adjusting said image into a modified template image to optimize the incorporation of selected information from said user into said image.

10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
21. The method of claim 20 wherein said modified template image is a substantially accurate representation of the produced customized contact lens.

22. The method of claim 21 further comprising the step of manufacturing a customized contact lens substantially resembling said modified template image.

20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
23. The method of claim 6 further comprising the step of forwarding said ordering request to a manufacturing facility for producing said lens in accordance with the colors and lens design patterns selected by the user.

24. The method of claim 23 further comprising the steps of obtaining prescription information from said user for said customized lens and incorporating said prescription information into said ordering request.

25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
25. The method of claim 24 further comprising the step of confirming said prescription information with a medical provider.

26. The method of claim 25 wherein said step of forwarding further comprises at least one method selected from the list of postcard sending, a data storage device, a pattern code transmission, telephone and facsimile.

5 27. The method of claim 6 wherein said customized contact lens is configured for use by a person other than said user.

28. The method of claim 6 further comprising the step of creating a user profile for said user, said profile incorporating at least the prescription information for said customized contact lens so that said lens may be worn by said user.

10 29. The method of claim 28 further comprising the step of creating a user lens profile for said user via said computer network, said user lens profile including at least one previously configured customized lens design specified by said user.

15 30. A method of providing a customized contact lens to a user, the method comprising the steps of:

20 displaying a template eye;
allowing the user to modify the appearance of the eye, and
deriving a contact lens pattern that, when worn, modifies the appearance of an eye according to the intentions of the user.

25 31. The method of claim 30 further comprising the step of modifying said template eye using a handheld device.

32. The method of claim 31 further comprising the step of modifying said template eye by selecting a color and a drawing tool.

33. The method of claim 32 further comprising the step of transmitting said contact lens pattern to at least one entity selected from the group comprising a peer, a lens ordering service or a manufacturer.

34. The method of claim 33 further comprising the step of ordering a contact lens.

35. A system for configuring a customized contact lens for a user, said system comprising:

5 means for displaying a template eye image to assist said user in visualizing selected options for a customized contact lens;

10 graphical display and interface means for displaying a plurality of contact lens selection options to said user, said information including a plurality of selectable and modifiable lens parameters, said means in communication with said means for displaying a template eye image;

15 means for sending a request to order a contact lens incorporating lens characteristics selected by the user;

means for receiving the ordering request; and

20 means for manufacturing a contact lens incorporating said characteristics selected by said user.

36. The system of claim 35 further comprising means for deriving a contact lens pattern that, when worn, modifies the appearance of an eye according to the intentions of the user.

37. A system for configuring a customized contact lens for a user, said system comprising:

25 an image input device for obtaining a graphical template eye image from said user;

30 a graphical user display in communication with said device for visualizing said template eye image, said user display displaying one or more of selectable lens characteristics in conjunction with said template eye image;

a user interface linked to said display for selecting one or more of said selectable lens characteristics for display;

35 a server in communication with said user interface, said server receiving selections of said lens characteristics from said user interface and

incorporating selected ones of said lens characteristics into a modified template eye image for display;

5 a database accessible by said server containing information relating to said user and said available selectable lens characteristics; and

a fabrication system in communication with said server for receiving information relating to said modified template eye image and manufacturing a contact lens based on said information.

10 38. The system of claim 37 wherein said user interface further comprises a subsystem for deriving a contact lens pattern that, when worn, modifies the appearance of an eye according to the intentions of the user.

15 39. The system of claim 38 wherein said database further comprises information generally available over the Internet, and said information being searchable by an intelligent agent originating from said server.

20 40. A method of tracking consumer preferences of contact lenses, said method comprising the steps of:

monitoring the activity of at least one customer; and
predicting the future purchasing behavior of consumers based
on said activity.

41. The method of claim 40 wherein the contact lens is a cosmetic contact lens.

25 42. The method of claim 40 wherein the activity is purchasing activity.

43. The method of claim 40 wherein the activity is browsing activity.

44. The method of claim 40 wherein an intelligent agent is employed to track customer preferences of contact lenses.

45. A method of using an intelligent agent to purchase a contact lens over a computer network, wherein the intelligent agent performs at least one of the following steps:

- 5 receiving one or more requirements related to a contact lens;
searching a computer network for a one or more sources of a contact lens which satisfies one or more of said requirements; and
presenting the results of said searching.

10 46. The method of claim 45 wherein the requirements are chosen from the group consisting of prescription, lens material, manufacturer, cosmetic effect, and delivery time.

15 47. The method of claim 45 wherein the contact lens is a cosmetic contact lens.

20 48. A method of performing a computer-based online purchase of a contact lens, in which a client computer issues a request and at least one server computer is available to service said request, said method, performed by an intelligent agent, comprising steps of:

searching the computer network for a contact lens having a set of specifications relating to said request;

25 searching for additional contact lenses having said set of specifications;

comparing the prices of the contact lenses found in said searches; and

informing the client computer of the contact lenses available and the associated prices of the contact lenses.

25 49. The method of claim 48 where the specifications are chosen from the group consisting of prescription, lens material, manufacturer, cosmetic effect, and delivery time.

50. The method of claim 48 where the intelligent agent purchases the lowest priced contact lens and utilizes funds from an online wallet account.

51. A method of informing a customer or potential customer of contact lenses of the availability of a desired lens, the method comprising the steps of:

monitoring the website activity of the customer; and sending a message to the customer at the time that the customer is viewing a website that implies interest in a contact lens

52. The method of claim 51 wherein the message is an electronic message.

53. The method of claim 51 wherein the contact lens is a cosmetic contact lens.

54. A method of using an intelligent agent to identify fashion trends to a user, said method comprising the steps of:

searching one or more computer networks; identifying new products for sale on said network; recognizing new product trends based on said identification; and presenting the trends to a user.

55. The method of claim 54 wherein the intelligent agent searches for purchasing activity data:

recognizes trends in the purchasing activity data; and presents the trends to a user.

56. The method of claim 54 wherein the trends are sent to customers of contact lenses as a service by a seller of contact lenses.

57. A method of employing an intelligent agent to recommend a cosmetic contact lens to a person, said method comprising the steps of: assessing data relating to the person's facial characteristics;

accessing a file comprising information relating to types of cosmetic lenses;

incorporating the person's facial characteristics into a recommendation for a cosmetic contact lens; and

5 recommending a contact lens to match the person's facial characteristics.

58. The method of claim 57 wherein the recommended contact lens substantially changes the color of the person's eyes.

10 59. The method of claim 57 wherein the recommended contact lens enhances the color of the person's eye's.

60. The method of claim 58 wherein the data as to the person's facial characteristics is an image of the person.

15 61. The method of claim 60 wherein the facial characteristics are selected from a list comprising hair color, skin tone, make-up, beard color, eyebrow color, eyebrow thickness, eyelash color, and eyelash thickness.

62. The method of claim 57 wherein the clothes of the person wandering a particular season are assessed and incorporated into the recommendation.

20 63. The method of claim 57 wherein weather or season is assessed and incorporated into the recommendation.

64. A method of selecting a cosmetic contact lens for a person comprising the steps of:

presenting the person's eye;

presenting a target eye;

25 accessing information relating to a set of cosmetic contact lenses;

estimating the cosmetic effect of a contact lens from the set of cosmetic contact lenses; and

recommending a best contact lens from the set of cosmetic contact lenses based on how estimated cosmetic effect of the best contact lens on the person matches the target eye.

65. The method of claim 64 wherein an intelligent agent is employed to access said information relating to a set of cosmetic contact lenses, to estimate the cosmetic effect of a contact lens from the set of cosmetic contact lenses, and to recommend a best contact lens from the set of cosmetic contact lenses based upon an estimated cosmetic effect of the best contact lens on the person having said target eye.

66. The method of claim 65 wherein a user interface is used to communicate with said person.

67. The method of claim 66 wherein said user interface includes speech recognition capability.

68. The method of claim 66 wherein said user interface further comprises a handheld device.